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EXAMINER
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ART UNIT	PAPER NUMBER
2161	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/620,095	HARJANTO, ANDY
	Examiner	Art Unit
	Brent S. Stace	2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 July 2003*.

2a)☐ This action is FINAL.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 July 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *20051221*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Remarks

1.   Claims 1-30 have been examined. Claims 1-30 have been rejected. This
document is the first Office action on the merits.

Drawings

2.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)
because they do not include the following reference sign(s) mentioned in the
description: Fig. 1, detail 52 (WAN). Corrected drawing sheets in compliance with 37
CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the
application. Any amended replacement drawing sheet should include all of the figures
appearing on the immediate prior version of the sheet, even if only one figure is being
amended. Each drawing sheet submitted after the filing date of an application must be
labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37
CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be
notified and informed of any required corrective action in the next Office action. The
objection to the drawings will not be held in abeyance.

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)
because they include the following reference character(s) not mentioned in the
description: Fig. 6, details 168 (LDAP queries) and Fig. 6, detail 170 (query results).
Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the

specification to add the reference character(s) in the description in compliance with 37

CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the figures

appearing on the immediate prior version of the sheet, even if only one figure is being

amended. Each drawing sheet submitted after the filing date of an application must be

labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37

CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be

notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5.   Claims 1-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention.

6.   Claim 1, 13, 17, 22, and 26 all include the limitation of "data view." This is not a

term found in the specification so the examiner has taken a broadest reasonable

interpretation. This rejection to the independent claims propagates downward through

the respective dependant claims rejecting all Claims 1-30.

7.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

8.   Claims 2-4, 14, 15, 18-20, 23-25, and 28 are rejected under 35 U.S.C. 112,

second paragraph, as being indefinite for failing to particularly point out and distinctly

claim the subject matter which applicant regards as the invention.

9.   Claim 2 recites the limitation "the step of reviewing configuration information" in

line 2. There is insufficient antecedent basis for this limitation in the claim. Claims 14,

18, and 23 share similar wording and are also rejected similarly to Claim 2. This

rejection propagates downward through the dependant Claims 3, 4, 15, 19, and 20

respectfully of their respective independent claims.

10.   Claim 4 recites the limitation "the client" in line 2. There is insufficient antecedent

basis for this limitation in the claim.

11.   Claim 24 recites the limitation "to a database server of the database" in lines 3-4.

It is unclear if the applicant intended to introduce a second server into Claims 24 and

25, if the applicants intend to introduce a second server it should be reflected in the

claims clearly (e.g. "to a second database server of the database"). This rejection

propagates downward through the dependant Claim 25 and fails to cure it.

12.   Claim 28 recites the limitation "further including a database server for the

database, and wherein the server" in lines 1-2. It is unclear what server the applicant is

referring to with "the server" in the limitation.

Claim Rejections - 35 USC § 102

13.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

14.   Claims 1-5, 12-14, 17-24, 26-30 are rejected under 35 U.S.C. 102(e) as being

anticipated by U.S. Patent No. 6,442,548 (Balabine et al.).

15.   **Claim 1** can be mapped to Balabine as follows: "A computer-readable medium

having computer-executable instructions [Balabine, col. 5, lines 21-46] for performing

steps for retrieving data from a database [Balabine, col. 5, lines 21-46] having a plurality

of objects, [Balabine, cols. 5-6, lines 63-4 with Balabine, col. 2, lines 50-55] comprising:

- receiving a database access request containing a location path expression

    identifying a data path to desired data in the database, [Balabine, col. 6, lines 23-

    31 with Balabine, col. 9, lines 38-54] the location path expression including a

    view name specifying a data view associated with a predefined relationship

    between object attributes in the database [Balabine, cols. 6-7, lines 65-13 with

    Balabine, col. 7, lines 34-56] and a plurality of path elements denoting nodes in

    the data path to the desired data; [Balabine, col. 6, lines 47-55] and

- performing database access operations to traverse the nodes in the data path

    based on the predefined relationship to locate the desired data" [Balabine, col. 6,

    lines 31-39 with Balabine, col. 6, lines 47-55 with Balabine, cols. 6-7, lines 65-13

    with Balabine, col. 7, lines 34-56].

16.   **Claim 2** can be mapped to Balabine as follows: "A computer-readable medium

as in claim 1, having further computer-executable instructions for performing the step of

reviewing configuration information to identify the predefined relationship associated

with the view name in the location path expression" [Balabine, col. 6, lines 31-39 with

Balabine, col. 6, lines 47-55 with Balabine, cols. 6-7, lines 65-13 with Balabine, col. 7,

lines 34-56].

17.   **Claim 3** can be mapped to Balabine as follows: "A computer-readable medium

as in claim 2, wherein the step of reviewing configuration information further identifies a

root level starting point associated with the view name" [Balabine, col. 6, lines 23-31

with Balabine, col. 6, lines 47-55 with Balabine, cols. 6-7, lines 65-13 with Balabine, col.

7, lines 34-56 with Balabine, col. 9, lines 38-54].

18.   **Claim 4** can be mapped to Balabine as follows: "A computer-readable medium

as in claim 2, wherein the step of reviewing the configuration determines whether the

client has permission to access the database based on the predefined relationship"

[Balabine, col. 7, lines 12-35].

19.   **Claim 5** can be mapped to Balabine as follows: "A computer-readable medium

as in claim 1, wherein the step of performing database access operations includes

generating a plurality of data queries for sequentially locating objects corresponding to

the path elements in the location path expression, and sending the data queries to a

database server of the database" [Balabine, col. 6, lines 31-39 with Balabine, col. 6,

lines 47-56].

20.   **Claim 12** can be mapped to Balabine as follows: "A computer-readable medium

as in claim 1, wherein the database is a directory service database" [Balabine, col. 6,

lines 5-10 with Balabine, Balabine, col. 6, lines 31-39 with Balabine, col. 6, lines 47-56].

21.   **Claim 13** can be mapped to Balabine as follows: "A computer-readable medium

having computer-executable instructions [Balabine, col. 5, lines 21-46] for a client to

perform steps to access data located in a database [Balabine, col. 5, lines 21-46 with

Balabine, Figs. 7 and 8] having a plurality of objects, [Balabine, cols. 5-6, lines 63-4 with

Balabine, col. 2, lines 50-55] comprising:

- forming a request containing a location path expression identifying a data path to

  desired data, [Balabine, col. 9, lines 38-54] the location path expression

  including a view name specifying a data view associated with a predefined

  relationship between object attributes in the database [Balabine, cols. 6-7, lines

  65-13 with Balabine, col. 7, lines 34-56] and a plurality of path elements denoting

  nodes in the data path to the desired data; [Balabine, col. 6, lines 47-55] and

- sending the request to a server for accessing the database" [Balabine, col. 6,

  lines 23-31 with Balabine, col. 6, lines 47-55 with Balabine, cols. 6-7, lines 65-13

  with Balabine, col. 7, lines 34-56 with Balabine, Figs. 7 and 8].

22.   **Claim 14** can be mapped to Balabine as follows: "A computer-readable medium

as in claim 13, having further computer-executable instructions for performing the step

of obtaining configuration information from the server defining relationships among

attributes of objects in the database and associated view names thereof" [Balabine, col.

6, lines 31-39 with Balabine, col. 6, lines 47-55 with Balabine, cols. 6-7, lines 65-13 with

Balabine, col. 7, lines 34-56 with Balabine, Figs. 7 and 8].

23.   **Claim 17** encompasses substantially the same scope of the invention as that of

Claim 1, in addition to a computer-readable medium and some instructions for a

database server of a database for performing the computer-readable medium

instructions of Claim 1. Therefore, Claim 17 is rejected for the same reasons as stated

above with respect to Claim 1. Additionally, Claim 17 is more specific than Claim 1 in

saying "instructions for a database server of a database" and "receiving a database

access request from a client." However, the citations used in Claim 1 in combination

with Figs. 7 and 8 fully teach all the limitations in Claim 17.

24.   **Claims 18-20 and 21** encompass substantially the same scope of the invention

as that of Claims 2-4 and 12, respectfully, in addition a to computer-readable medium

and some instructions for a database server of a database for performing the computer-

readable medium instructions of Claims 2-4 and 12, respectfully. Therefore, Claims 18-

20, and 21 are rejected for the same reasons as stated above with respect to Claims 2-

4 and 12, respectfully.

25.   **Claim 22** can be mapped to Balabine as follows: "A method for a client to obtain

data from a database [Balabine, col. 5, lines 21-46 with Balabine, Figs. 7 and 8]

containing a plurality of objects, [Balabine, cols. 5-6, lines 63-4 with Balabine, col. 2,

lines 50-55] comprising:

- constructing, by the client, a database access request containing a location path expression identifying a data path to desired data, [Balabine, col. 9, lines 38-54 with Balabine, Figs. 7 and 8] the location path expression including a view name associated with a predefined relationship between object attributes in the database [Balabine, cols. 6-7, lines 65-13 with Balabine, col. 7, lines 34-56] and a plurality of path elements denoting nodes in the data path to the desired data; [Balabine, col. 6, lines 47-55]

- sending, by the client, the database access request to a server for accessing the database; [Balabine, col. 9, lines 38-54 with Balabine, Figs. 7 and 8]

- performing, by the server, database access operations to traverse the nodes in the data path based on the predefined relationship to locate the desired data; [Balabine, col. 6, lines 31-39 with Balabine, col. 6, lines 47-55 with Balabine, cols. 6-7, lines 65-13 with Balabine, col. 7, lines 34-56 with Balabine, Figs. 7 and 8] and

- returning, by the server, the located desired data to the client" [Balabine, col. 6, lines 31-39].

26.   **Claim 23** can be mapped to Balabine as follows: "A method as in claim 22, further including the step of reviewing, by the server, configuration information to identify the predefined relationship associated with the view name of the location path expression" [Balabine, col. 6, lines 31-39 with Balabine, col. 6, lines 47-55 with Balabine, cols. 6-7, lines 65-13 with Balabine, col. 7, lines 34-56 with Balabine, Figs. 7 and 8].

27.   **Claim 24** can be mapped to Balabine as follows: "A method as in claim 22,

wherein the step of performing database operations by the server includes generating a

plurality of data queries to locate objects corresponding to the path elements in the

location path expression, and sending the data queries to a database server of the

database" [Balabine, Balabine, col. 6, lines 31-39 with Balabine, col. 6, lines 47-56].

28.   **Claim 26** can be mapped to Balabine as follows: "A database system for

providing data in response to requests from clients, [Balabine, col. 6, lines 23-31 with

Balabine, col. 5, lines 21-46 with Balabine, Figs. 7 and 8] comprising:

- a database containing a plurality of objects; [Balabine, cols. 5-6, lines 63-4 with

    Balabine, col. 2, lines 50-55]

- a server for accessing data in the database, the server being programmed for

    receiving a database access request from a client [Balabine, col. 6, lines 23-31

    with Balabine, col. 9, lines 38-54 with Balabine, Figs. 7 and 8] containing a

    location path expression identifying a data path to desired data, [Balabine, col. 6,

    lines 23-31 with Balabine, col. 9, lines 38-54] the location path expression

    including a view name associated with a predefined relationship between object

    attributes in the database [Balabine, cols. 6-7, lines 65-13 with Balabine, col. 7,

    lines 34-56] and a plurality of path elements denoting nodes in the data path to

    the desired data, [Balabine, col. 6, lines 47-55] the server being further

    programmed for performing database access operations to traverse the nodes in

    the data path based on the predefined relationship to locate the desired data and

    returning the located desired data to the client" [Balabine, col. 6, lines 31-39 with

Balabine, col. 6, lines 47-55 with Balabine, cols. 6-7, lines 65-13 with Balabine,

col. 7, lines 34-56 with Balabine, Figs. 7 and 8].

29.   **Claim 27** can be mapped to Balabine as follows: "A database system as in claim

26, wherein the server contains configuration information identifying the predefined

relationship associated with the view name of the location path expression" [Balabine,

col. 6, lines 31-39 with Balabine, col. 6, lines 47-55 with Balabine, cols. 6-7, lines 65-13

with Balabine, col. 7, lines 34-56 with Balabine, Figs. 7 and 8].

30.   **Claim 28** can be mapped to Balabine as follows: "A database system as in claim

26, further including a database server for the database, and wherein the server

performs the database access operations by generating a plurality of data queries to

locate objects corresponding to the path elements in the location path expression, and

sending the data queries to the database server" [Balabine, Balabine, col. 6, lines 31-39

with Balabine, col. 6, lines 47-56 with Balabine, Figs. 7 and 8].

31.   **Claim 29** can be mapped to Balabine as follows: "A database system as in claim

26, wherein the server is a database server of the database" [Balabine, Balabine, col. 6,

lines 31-39 with Balabine, col. 6, lines 47-56 with Balabine, col. 9, lines 38-54 with

Balabine, Figs. 7 and 8].

32.   **Claim 30** can be mapped to Balabine as follows: "A database system as in claim

26, wherein the database is a directory service database" [Balabine, col. 6, lines 5-10

with Balabine, Balabine, col. 6, lines 31-39 with Balabine, col. 6, lines 47-56].

Claim Rejections - 35 USC § 103

33.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

34.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,442,548 (Balabine et al.) in view of U.S. Patent No. 6,366,954 (Traversat

et al.).

35.   For **Claim 6,** Balabine teaches: "A computer-readable medium as in claim 5."

Balabine discloses the above limitation but does not expressly teach: "...wherein

the data queries are according to the Lightweight Directory Access Protocol (LDAP)."

With respect to Claim 6, an analogous art, Traversat, teaches: "...wherein the

data queries are according to the Lightweight Directory Access Protocol (LDAP)"

[Traversat, col. 5, lines 38-42].

It would have been obvious to one of ordinary skill in the art at the time of

invention to combine Traversat with Balabine because both inventions are directed

towards using directory services.

Traversat's invention would have been expected to successfully work well with

Balabine's invention because both inventions use databases and Balabine teaches that

his invention can conform to other protocols (Balabine, col. 9, lines 54-60). Balabine

discloses a database interface for database unaware applications comprising the use of

a network file system (NFS), however Balabine does not expressly disclose that LDAP

is used as the protocol on how the queries in Balabine are formulated/formatted.

Traversat discloses a method and data format for exchanging data between a java

system database entry and an LDAP directory service comprising the use of the LDAP

in directory services.

It would have been obvious to one of ordinary skill in the art at the time of

invention to take the use of the LDAP in directory services from Traversat and install it

into the computer-readable medium of Balabine, thereby offering the obvious advantage

of tuning directories of Balabine or Traversat to give quick-responses to high-volume

lookup or search operations (Traversat, cols. 5-6, lines 60-13).

36.   Claims 7, 15, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 6,442,548 (Balabine et al.) in view of U.S. Patent Applicatoin

Patent No. 2003/0126136 (Omoigui).

37.   For **Claim 7**, Balabine teaches: "A computer-readable medium as in claim 5."

Balabine discloses the above limitation but does not expressly teach: "…wherein

the step of receiving receives the database access request in a message according to

the Simple Object Access Protocol (SOAP)."

With respect to Claim 7, an analogous art, Omoigui, teaches: "…wherein the step

of receiving receives the database access request in a message according to the

Simple Object Access Protocol (SOAP)" [Omoigui, paragraph [0308]].

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Omoigui with Balabine because both inventions are directed towards communicating across a network.

Omoigui's invention would have been expected to successfully work well with Balabine's invention because both inventions use computers communicating across a network. Balabine discloses a database interface for database unaware applications comprising issuing queries and communicating across a network, however Balabine does not expressly disclose that the SOAP is used. Omoigui discloses a system and method for knowledge retrieval, management, delivery, and presentation comprising using SOAP messages for communication.

It would have been obvious to one of ordinary skill in the art at the time of invention to take the SOAP communication messages from Omoigui and install it into the computer-readable medium of Balabine, thereby offering the obvious advantage of gaining the security features of SOAP as described in Omoigui paragraph [0308].

38.   For **Claim 15**, Balabine teaches: "A computer-readable medium as in claim 14."

Balabine discloses the above limitation but does not expressly teach: "...wherein the step of sending sends the request in a message to the server according to the Simple Object Access Protocol (SOAP)."

With respect to Claim 15, an analogous art, Omoigui, teaches: "...wherein the step of sending sends the request in a message to the server according to the Simple Object Access Protocol (SOAP)" [Omoigui, paragraph [0308]].

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Omoigui with Balabine because both inventions are directed towards communicating across a network.

Omoigui's invention would have been expected to successfully work well with Balabine's invention because both inventions use computers communicating across a network. Balabine discloses a database interface for database unaware applications comprising issuing queries and communicating across a network, however Balabine does not expressly disclose that the SOAP is used. Omoigui discloses a system and method for knowledge retrieval, management, delivery, and presentation comprising using SOAP messages for communication.

It would have been obvious to one of ordinary skill in the art at the time of invention to take the SOAP communication messages from Omoigui and install it into the computer-readable medium of Balabine, thereby offering the obvious advantage of gaining the security features of SOAP as described in Omoigui paragraph [0308].

39.   For **Claim 25**, Balabine teaches: "A method as in claim 24."

Balabine discloses the above limitation but does not expressly teach: "...wherein the step of sending by the client sends the database access request in a message to the server according to the Simple Object Access Protocol (SOAP)."

With respect to Claim 25, an analogous art, Omoigui, teaches: "...wherein the step of sending by the client sends the database access request in a message to the server according to the Simple Object Access Protocol (SOAP)" [Omoigui, paragraph [0308]].

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Omoigui with Balabine because both inventions are directed towards communicating across a network.

Omoigui's invention would have been expected to successfully work well with Balabine's invention because both inventions use computers communicating across a network. Balabine discloses a database interface for database unaware applications comprising issuing queries and communicating across a network, however Balabine does not expressly disclose that the SOAP is used. Omoigui discloses a system and method for knowledge retrieval, management, delivery, and presentation comprising using SOAP messages for communication.

It would have been obvious to one of ordinary skill in the art at the time of invention to take the SOAP communication messages from Omoigui and install it into the computer-readable medium of Balabine, thereby offering the obvious advantage of gaining the security features of SOAP as described in Omoigui paragraph [0308].

40.   Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,442,548 (Balabine et al.) in view of U.S. Patent No. 5,630,121 (Braden-Harder et al.).

41.   For **Claim 8** Balabine teaches: "A computer-readable medium as in claim 1."

Balabine discloses the above limitation but does not expressly teach: "...wherein one of the path elements of the location path expression is a wildcard element."

With respect to Claim 8, an analogous art, Braden-Harder, teaches: "...wherein one of the path elements of the location path expression is a wildcard element" [Braden-Harder, col. 10, lines 10-16].

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Braden-Harder with Balabine because both inventions are directed towards searching for data.

Braden-Harder's invention would have been expected to successfully work well with Balabine's invention because both inventions use queries on databases. Balabine discloses a database interface for database unaware applications comprising querying a database, however Balabine does not expressly disclose that the searches can have wildcard charaters in them to narrow or broaden a search. Braden-Harder discloses archiving and retrieving multimedia objects using structured indexes comprising the optional use of a wildcard character to narrow or broaden a search query.

It would have been obvious to one of ordinary skill in the art at the time of invention to take the optional use of a wildcard character to narrow or broaden a search query from Braden-Harder and install it into the computer-readable medium of Balabine, thereby offering the obvious advantage of gaining an easier way to narrow or broaden a search in Balabine by the use of a wildcard charater.

42.   For **Claim 16** Balabine teaches: "A computer-readable medium as in claim 13."

Balabine discloses the above limitation but does not expressly teach: "...wherein one of the path elements of the location path expression is a wildcard element."

With respect to Claim 16, an analogous art, Braden-Harder, teaches: "...wherein one of the path elements of the location path expression is a wildcard element" [Braden-Harder, col. 10, lines 10-16].

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Braden-Harder with Balabine because both inventions are directed towards searching for data.

Braden-Harder's invention would have been expected to successfully work well with Balabine's invention because both inventions use queries on databases. Balabine discloses a database interface for database unaware applications comprising querying a database, however Balabine does not expressly disclose that the searches can have wildcard charaters in them to narrow or broaden a search. Braden-Harder discloses archiving and retrieving multimedia objects using structured indexes comprising the optional use of a wildcard character to narrow or broaden a search query.

It would have been obvious to one of ordinary skill in the art at the time of invention to take the optional use of a wildcard character to narrow or broaden a search query from Braden-Harder and install it into the computer-readable medium of Balabine, thereby offering the obvious advantage of gaining an easier way to narrow or broaden a search in Balabine by the use of a wildcard charater.

43.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,442,548 (Balabine et al.) in view of U.S. Patent No. 5,619,692 (Malkemus et al.).

44.   For **Claim 9**, Balabine teaches: "A computer-readable medium as in claim 1."

Balabine discloses the above limitation but does not expressly teach: "...wherein one of the path elements of the location path expression indicates a search in a reversed direction of the predefined relationship."

With respect to Claim 9, an analogous art, Malkemus, teaches: "...wherein one of the path elements of the location path expression indicates a search in a reversed direction of the predefined relationship" [Malkemus, cols. 1-2, lines 60-4].

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Malkemus with Balabine because both inventions are directed towards querying a database to retrieve results.

Malkemus's invention would have been expected to successfully work well with Balabine's invention because both inventions can use SQL to query. Balabine discloses a database interface for database unaware applications comprising querying a database and retrieving results, however Balabine does not expressly disclose ordering the results of the query in a different order(s). Malkemus discloses the semantic optimization of query order requirements using order detection by normalization in a query compiler system comprising the known ways to order results of an SQL query in ascending order (ASC) or descending order (DESC).

It would have been obvious to one of ordinary skill in the art at the time of invention to take the ordering of results from Malkemus and install it into the computer-readable medium of Balabine, thereby offering the obvious advantage of retrieving information in different orders according to an attribute.

45.   Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 6,442,548 (Balabine et al.).

46.   **Claim 10** can be mapped to Balabine as follows: "A computer-readable medium

as in claim 1, wherein the predefined relationship is defined between attributes of two

objects of a same class" [Balabine, cols. 6-7, lines 65-13 with Balabine, col. 7, lines 34-

63].

       Balabine is silent on wherein the predefined relationship is defined between

attributes of two objects of a same class, but in the citations of Balabine above it is

implied that the database tables/rows can be mapped however desired which

encompasses this limitation.

47.   **Claim 11** can be mapped to Balabine as follows: "A computer-readable medium

as in claim 10, wherein the predefined relationship is defined between attributes of two

objects of different classes" [Balabine, cols. 6-7, lines 65-13 with Balabine, col. 7, lines

34-63].

       Balabine is silent on wherein the predefined relationship is defined between

attributes of two objects of different classes, but in the citations of Balabine above it is

implied that the database tables/rows can be mapped however desired which

encompasses this limitation.
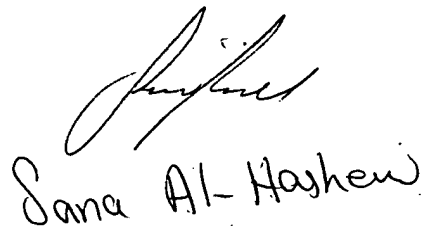
Point of Contact

48.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Applicant is advised that, although not used in the rejections

above, prior art cited on the PTO-892 form and not relied upon is considered materially

relevant to the applicant's claimed invention and/or portions of the claimed invention.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brent S. Stace whose telephone number is 571-272-

8372. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

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Brent Stace